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| EXAMINER | |
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

***Response to Arguments***

1. Applicant's arguments filed 7/10/09 have been fully considered but they are not persuasive.

In the Remark, Applicant contends that

Despite the foregoing, please note that the "hand-over process" is amply and aptly described in the specification, including by being illustrated in Fig. 2A and also being shown in various ones of the drawings, including in Fig. 4. For example, in the brief description of the drawings, mention is made at Fig. 3 of illustrating the hand-over method and the embodiment 1. See also, the brief description Fig. 4. Besides, the term "hand-over process" is self-explanatory within the context of the extensive specification herein. It is simply a matter of using one or another of several antennas as the means for conveying a signal from a base station. In other words, the coupling of the signal is "handed-over" from one antenna to another", See also the instant specification paragraphs [0034], [0036] and [0038] and many other sections of the instant specification.

In response, the examiner asserts that the term "hand-over process" is generally and conventionally refers to a hand-over process between base stations, not from one antenna to another. In fact, a "handed-over" from one antenna to another" is more likely referred to as "diversity switching". Further, the instant specification paragraphs [0034], [0036] and [0038] and many other sections of the instant specification is completely **silent** with the claimed term "differences". Not to mention that there is no such self-explanatory within the context of the extensive specification because there are several types of hand-over such as soft hand-over, hard hand-over, semi-soft and/or semi-hard hand-overs. Therefore, the specification just merely describes a conception or abstract idea. While conception is the mental part of the inventive act, it must be capable of proof, such as by demonstrative evidence or by a complete disclosure to another. Conception is more than a vague idea of how to solve a problem. The requisite means themselves and their interaction must also be comprehended. See *Mergenthaler v. Scudder*, 1897 C.D. 724, 81 O.G. 1417 (D.C. Cir. 1897).

Applicant further contend that

Turning to the rejection of claims 23-37 on the basis of the first paragraph of 35 U.S.C. § 112, the applicant respectfully traverses the same on the basis of the present claim amendments and further, on the basis that the specification more than adequately defines and describes the scope of this limitation. For example, the term "state" of the antenna signals or, in other words, the condition of the antenna signals in a most obvious form thereof, refers to the signal strength or intensity thereof, as clearly described in the specification, which speaks about the issue of zones where no signal at all is sensed, or where the signals for two or more antennas are compared and the comparison is clearly described in terms of the signal strength. A comparison inherently entails comparing two quantities and noting the **difference** there between, including which is more intense or less intense in signal magnitude.

In response, the examiner notes that Applicant has failed to address **which difference** is used as outlined by the examiner in the previous Final Office Action under the 112 first rejection. Here, Fig. 4 shows two antennas (101-1, 101-2) and three base stations (102-1, 102-2, 102-3), then "a detector configured for detecting a transmission/reception state of each antenna" would comprise

X11 : signal measurement between antenna 101-1 and base station 102-1,

X12 : signal measurement between antenna 101-1 and base station 102-2,

X13 : signal measurement between antenna 101-1 and base station 102-3,

X21 : signal measurement between antenna 101-2 and base station 102-1,

X22 : signal measurement between antenna 101-2 and base station 102-2,

X23 : signal measurement between antenna 101-3 and base station 102-3,

and "a hand-over facility configured for performing a hand-over process based upon difference of said transmission/reception state of each of said antennas" would comprise several differences (X11-X12), (X11-X13,) (X11-X21), (X11-X22), X(11-X23) and so on. In general, differences = (Xik – Xjl), where i=1, 2; j=1, 2; k=1,2, 3; and l=1,2,3; this would lead to the question of which **difference** would be used for

performing a hand-over process based upon **difference** of said transmission/reception state of each of said antennas ?

The litmus test for maintaining an objection under the first paragraph of 35 U.S.C. § 112 is whether the specification describes the invention in such a way "as to enable one skilled in the art to which it pertains, or to which it is most likely connected, to make and/or use the invention without undue experimentation. Here, the implementation of a circuit that can compare the signal intensities borders on the trivial. It is simply a matter of comparing signal magnitudes. The specification and the drawings speak repeatedly of the basic approach which is to sense signal intensities coming through the various antennas and comparing and noting the differences therebetween. On the basis of the foregoing remarks, the applicant traverses and respectfully requests reconsideration and withdrawal of the rejection of any claim herein under the first paragraph of 35 U.S.C. §112.

Again, it is not clear which **difference** would be used for performing a hand-over process based upon **difference** of said transmission/reception state of each of said antennas

Substantively, claims 23-40 are stated to be obvious over Furukawa (6,108,548), in view of Cvetkovic (6,236,844). Reconsideration is requested in view of the further amendments to the claims herein and the following remarks.
The primary Furukawa reference does not teach and is, in fact, silent (as acknowledged at the top of page of the Office Action) about having and utilizing two antennas that are deliberately spaced apart and which are utilized in a manner whereby differences in the signals between the two antennas are noted for the purposes of determining a precise point of switching from one base station to another, particularly in a moving vehicle.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., determine a precise point of switching) are **not recited** in the rejected independent claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Further, the examiner notes that the specification fails to teach which criterion nor provide any particular equation or formula that would determine such precise point of switching. By simply argue that such determination is based on differences **without**

providing any particular equation or formula for the differences would contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

However, just for the sake of arguments, since Furukawa teaches two branches of antenna, these two branches of antenna would implicitly teach two spaced apart antennas. The selection of the antenna with the highest signal intensity would obvious teach the claimed "difference" with the broadest reasonable interpretation.

Rather, the two antennas in the Furukawa reference are simply used to save time in the hand-over process by engaging a downstream base station with one of the two antennas which is not utilized for active communication and thereby preparing the two systems for the point where a faster switchover will occur. But no signal intensity or signal quality are being tested with the two antennas to determine the spacial point where such switchover should take place.
It is not enough to find a secondary reference, such as Cvetkovic, that shows two antennas spaced apart. This is because of the fact that even if one would simply space apart the antennas in the Furukawa reference, they still would not be configured and used structurally and functionally as in the present claims. The hypothetically spaced apart antennas in Furkawa would still be used such that only one of the antennas is used for active communication. The other antenna would be used for an entirely different purpose and function, namely to set up and prepare for the eventual switchover.
The secondary Cvetkovic reference does not teach determining the point of a switchover. Its disclosure is limited to the solving of the specific problem which ensues from poor reception of signals which sometimes result from the phenomena such as "short time delay multi-path" and "long time delay multi-path", which can result in signals that are difficult to read.
The secondary reference teaches that by using two spaced apart antennas, the quality of the signal can be improved by, in effect, subtracting from them the undesired reflective signals or the signal artifacts. But, again, using two spaced apart antennas in order to solve the multi-path problem does not amount to a teaching of a system or methodology which enables the finding of the precise spacial location of switching over from one base station to another base station through the use of spaced apart antennas which provide far more accurate measures of the relative position of the mobile device relative to the base stations. None of the cited references deals with the problem identified and addressed by the invention defined in the instant claims. They disclose neither the structure, nor the methodology for achieving the ends of the present invention.

Again, it is noted that the features upon which applicant relies (i.e., determine a precise spatial point of switching) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are

not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

For foregoing reasons, the examiner believes that the pending claims are not allowable over the cited prior art.

***Conclusion***

2. **Any response to this action should be mailed to:**

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Hand-delivered responses should be brought to Customer Service Window, Randolph Building, 401 Dulany Street, Alexandria, VA 22314.

Any inquiry concerning this communication or communications from the examiner should be directed to Duc M. Nguyen whose telephone number is (571) 272-7893, Monday-Thursday (9:00 AM - 5:00 PM).

Or to Nay Maung (Supervisor) whose telephone number is (571) 272-7882.

/Duc M. Nguyen/

Primary Examiner, Art Unit 2618

July 20, 2009